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*RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/606,977

DATE: 04/03/2001 TIME: 13:22:58

Input Set : N:\paola\i606977.raw

Output Set: N:\CRF3\04032001\1606977.raw

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      2 <120> TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
      3
              Plants
      4 <130> FILE REFERENCE: 38-21(15877)B
      5 <140> CURRENT APPLICATION NUMBER: US/09/606,977
                                                                      ENTERED
      6 <141> CURRENT FILING DATE: 2000-06-28
      7 <160> NUMBER OF SEQ ID NOS: 82359
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     12 <213> ORGANISM: Zea mays
     13 <223> OTHER INFORMATION: unsure at all n locations
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              accctgagta cgagtgtctg ttcattgtgg ttgtcgaagc ctgaacattt gggtatttga
W-->
    17
              agtgaatate gngtttette ettatttega geaetaagae tegeetgteg getagetgaa
     18
              ccgcttaacc gagcgtgagt tgccttgcgc ggaaggtgac gagtgaggta tctgtattcc
                                                                                  240
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     22 <211> LENGTH: 360
     23 <212> TYPE: DNA
     24 <213> ORGANISM: Zea mays
     25 <400> SEQUENCE: 2
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              attgaaagac cccgctcgtc agtgaatgtt gctattctag caaagggaag gtgttttttc
     28
              ggaccttcgg cgtaaaqcct tcgtccatgt cgcaatctaa atttattatt ttaaaataaa
     29
                                                                                  240
              ttaatattgc gaggggctac tggtgggggc cttctgctta caaaggtcct caaaaacagg
     30
              atttaacaat atttctggag tataatgtgt gagcaggtat cttcggactc aagtcggtat
                                                                                  300
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     34 <211> LENGTH: 433
     35 <212> TYPE: DNA
     36 <213 ORGANISM: Zea mays
     37 <223> OTHER INFORMATION: unsure at all n locations
     38 <400> SEQUENCE: 3
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              gagttcaccg gatgtgggcg ccaatgttgg ggacttgttc tcaaatgctt cgaattaaga
     41
              acaagacaac acaaaaatgt taagtataaa ttcccttcgt ccgctgaagc attatctccc
     42
              caaggattta atgagetteg gacgaaggee ataaataaag tateacgaag gttteacett
     43
              cgtgatcata tttttaagac aacaatgaga aatgaaatat aaagcacaaa atatattcac
                                                                                 300
     44
              atattctgtt atatgaatat acaagtattg aaacataaca tttacgaaca tttatacctt
                                                                                 360
W--> 45
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                                                                                  420
              agtaccggga tac
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     49 <211> LENGTH: 359
     50 <212> TYPE: DNA
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Input Set : N:\paola\i606977.raw

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                                                                                   60
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     54
             caaacctagc ttttaaggaa tattgcctta ttaatggaat actgactaga aaacctagtt
                                                                                  120
     55
             gccaggtgta ccggaagaaa gtttattaag aataacttac tatcttctat ataactgata
                                                                                  180
     56
             ttatagcata catgagcatc atgttatgta tggctgttaa aaacaagaaa agaattgtca
                                                                                  240
              aaaaacgact gaccaccgcc agactcacct gcggaatgtt tatttgtttt gggacaatcc
                                                                                  300
              aatcctacaa ggcatacctt cttggtttaa acttatactt gtgagcttag gaagagtgg
                                                                                  359
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     61 <211> LENGTH: 358
     62 <212> TYPE: DNA
     63 <213> ORGANISM: Zea mays
     64 <223> OTHER INFORMATION: unsure at all n locations
     65 <400> SEQUENCE: 5
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     67
              aggaaagttt gcgtgtcggc atcaatgctt cttcaataag ctagctgcca agcgaaacct
W--> 68
              agaagcctga agatgattcn ttgagtagcc agaatcagcg ttggcaatca gcaaccagat
                                                                                  180
              gctcctcaaa gaccagattt tgttgaagtt ccatctcctc gaagagttgc aaagtgaaga
                                                                                  240
     69
     70
              tatgtagctg aagtaaagct atacccataa cccttctaag acgaatctcg aggacgagat
                                                                                  300
              ttctttaagt gggtaggatt gtagcatccc acaaatcaaa ttctgaattt tctcaact
                                                                                  358
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     74 <211> LENGTH: 449
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     76 <213> ORGANISM: Zea mays
     77 <223> OTHER INFORMATION: unsure at all n locations
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     81
              cqcaaatcaa qaqaaaaqqt atqtttctaa qtcctaqtac attqqttttq tqtactaata
     82
              tacttqtcta aqtqttqgaa acagaaagta taagaaaaga gaagaggtqc aaaaagttcg
     83
              gtetggagea eeggaetgte eggtggtgea eeggaeagtg teeggtgege eaggetgaet
     84
              eggegegaac tgecegetet caggaatatg eegaeggegt aeggetaaaa tteaeeggae
                                                                                  360
     85
              tattccgtgt gcaccggact gtccggtgag tcaacggtcg actgagccaa cggtcggcag
                                                                                  420
              cggaatctgc gcgcgacacg tggctggcc
     86
                                                                                  449
     88 <210> SEQ ID NO: 7
     89 <211> LENGTH: 344
     90 <212> TYPE: DNA
     91 <213> ORGANISM: Zea mays
     92 <400> SEQUENCE: 7
     93
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     94
              ttgtttctca agttgggcat aattgctttt tagatatgac taccttgaaa agacttgctt
     95
              ttatgaacaa aaatatgtaa attttgtaat cgggaggtaa gtacaaataa ttagtcactt
     96
              taaaactgca cgatgtatct acaggtacaa acctaatcaa aatgcttcta aacagcgtac
     97
              ggagtatcta tagatatgta cccactaatt agacagtgtt aggtacattt gtaaaaaaat
                                                                                  300
     98
              atatgaattt ctagggaatt aatgccttct caaatatatg aaaa
                                                                                  344
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     101 <211> LENGTH: 186
     102 <212> TYPE: DNA
     103 <213> ORGANISM: Zea mays
     104 <400> SEQUENCE: 8
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Input Set : N:\paola\i606977.raw

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105
                                                                                    60
               ccagtagget actataacag tgatatcact ttatcaatta cagatagtga cctcacactc
     106
               ttgaggtatg attcactttt taagaagaac actatatcta aagaaaggta cccattttaa
                                                                                  120
     107
               taatgcaacc gagcagttaa ttaagattac aaaaaattga ggaggggga aatacaattt
                                                                                  180
     108
               ccacct
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     111 <211> LENGTH: 404
     112 <212> TYPE: DNA
     113 <213> ORGANISM: Zea mays
     114 <223> OTHER INFORMATION: unsure at all n locations
     115 <400> SEOUENCE: 9
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     117
               acceaageet aaatttgeet tgeaggttta tgeateeggg ggeteaagtt ggattatega
     118
               cagoggatgo acaaaccata tgaoggggga gaagaagatg ttoacctoot acgtoaagaa
     119
               taaggattcc caagattcaa tcatattcgg ggatgggaac caaagcaagg tgaaaggttt
                                                                                   240
     120
               gggcaagatt gcaatatcaa atgagcactc tatctctaat gtgtttttag ttgagtctct
                                                                                  300
     121
               tggatataat ttactatctg tcagtcaatt atgtaatatg ggatattatt tgctatttac
                                                                                  360
               aaatgtaaat gtgtctgtct ttataagaag tgatggttca ctat
     122
                                                                                   404
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     125 <211>" LENGTH: 343
     126 <212> TYPE: DNA
     127 <213> ORGANISM: Zea mays
     128 <223> OTHER INFORMATION: unsure at all n locations
     129 <400> SEQUENCE: 10
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     131
               geogeogeae gtggaeegag ctaaceagtg agtettegte caatteettg cacceacaac 120
     132
               ttccctgaca tcccgtgaag ctctctcacc cgttcaattg aactatcgcg ccgtgagtag 180
     133
               geoggaetee tegeogeoga egageatete egeetgegea egtggaeega eegaeteeaa 240
W--> 134
               ccatccccga cggcgacccg cacatcgttg tgatcctcga gaccttccct acgtnctcga 300
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     137 <210> SEQ ID NO: 11
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     141 <223> OTHER INFORMATION: unsure at all n locations
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W--> 144
               gtggtaactt cacacctacc cgtctgttta tatagtgccg cangtgggaa ggtgaatcgg
                                                                                  120
     145
               caaggtetee ageacegaac aaacagteae eegcacteae tgageggtgg gecacagggt
     146
              togagaaggt gaatogotgg cgcgcqcqta attggtgcaa gatggggcgc gcgcgacgat
                                                                                   240
     147
               tattttaatc gtttctcgcc aacgagctca gggaaggtgt tttttggatc ttcggcgtcc
                                                                                  300
     148
               cgaagcctag aagacttttt cacggatcaa gctcgttacg aaaaacgatc tatcaccgcg 360
     149
               aatgggctac ttgtgggggt attgcttcgt ac
                                                                                   392
     151 <210> SEQ ID NO: 12
     152 <211> LENGTH: 447
     153 <212> TYPE: DNA
     154 <213> ORGANISM: Zea mays
     155 <223> OTHER INFORMATION: unsure at all n locations
     156 <400> SEQUENCE: 12
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                                                                                    60
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158
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159
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         cataggagga agtaagtatg gtttagttat tgttgatgac ttttcccgct tcacttgggt
                                                                              240
160
161
          gttctttttg caggaaaaat ccgaaaccca agggactctc aaacgcttcc tcaggagagc
                                                                              300
162
          tcaaaatgag tttgagctca aagtgaaaaa gataagaagc gacaacgggt ccgagttcaa
                                                                              360
163
          gaaccttcaa gtggaggagt tccttgaaga ggaagggatc aagcacgagt tctccgtccc
                                                                              420
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          tacacaccac agcaaaatgg tgtggta
                                                                              447
166 <210> SEQ ID NO: 13
167 <211> LENGTH: 341
168 <212> TYPE: DNA
169 <213> ORGANISM: Zea mays
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171
172
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173
          gtgagggagg cgaaaccgaa tgagcggaga ctgttcctat ctccgaagcg atgcaacgat
                                                                              180
174
                                                                              240
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                                                                              300
175
          cagaataagt tgtcgccgaa gcggaagaag gaaatattga ggaagctgat tccgatgatg
          attaccatat tgccgtgcca agcaagccca gccacttgga c
                                                                              341
176
178 <210> SEO ID NO: 14
179 <211> LENGTH: 418
180 <212> TYPE: DNA
181 <213> ORGANISM: Zea mays
182 <400> SEQUENCE: 14
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184
          atattttact gaaaaatcga atggccatgt tcttaatcat tctacttatg ataaagaatt
185
          atatqctctc atacqatctt tqcaaacatq qaaacattat ttqcqqtcta acqaatctqt
186
187
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188
          acatgccaag tgggtagaat ttcttgaaac tttctcttac atcattaaat ataaaaaggg 360
189
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193 <212> TYPE: DNA
194 <213> ORGANISM: Zea mays
195 <400> SEQUENCE: 15
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197
                                                                              120
198
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                                                                              180
199
          tegtgaaccc ggcaaaagct gtccgcaaat ggctccactg cttggcttcg gagtgcccag
                                                                              240
200
          atataaacac taaqcctaac qataqcqtta qqqqtcaqct qqtqaaaata qataccqaac
                                                                              300
201
          ctcttcagta cctctgcaat aatcccatgt agggggaatc ttaatccagc ctttagaaag
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205 <211> LENGTH: 427
206 <212> TYPE: DNA
207 <213> ORGANISM: Zea mays
208 <400> SEQUENCE: 16
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210
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	211	•	cacggatctg gt	-	-	-	-		180
	212		aatgccaaag tt	aaaggggg	agaagaagga	aggggatctt	gtccggcttc	cttaccactt	240
	213		caaattcaag aa	atatttta	agaagccctg	ccaagagtgg	ctggatacag	ttgaggtgat	300
	214		gtgtaatgaa at	tcttggaa	attattcgaa	aaaagaagat	caactgatga	cagcagcctt	360
	215		etgcacccgt cc	caaqcqaa	ggctgaaccg	agtgcttgat	gcactgggtt	togaatatoo	420
	216		tgattat	3 2	33 3 3	3 3 3	5 555	•	427
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			ORGANISM: Zea	mavic					
			OTHER INFORMA	•	uro at all	n logations			
				ilon, uns	sure at arr	ii iocations	•		
T-7 S		4002	SEQUENCE: 17 ntqcccacaa tqqcqcacaa atatacctca tqaacttttt atcactqtca qqtactacqq						
M>			-			_	_		60
	225		tctagggcac tc		•				120
	226		catcctcatt ct			-	cgggaatctc	tcatccacaa	180
	227		caaaaatgct at	-	ttttgagacc	t			211
			SEQ ID NO: 18						
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	232	<213>	ORGANISM: Zea	mays					
-	233	<223>	OTHER INFORMA	TION: uns	ure at all	n locations	3		
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	236		cctqctcqqt tc		-				120
	237		ccgcgtctcc tc					-	180
	238		acgcacgaag tt	-	-			_	240
W>			acgaatncat gc	-		, , ,			300
" ,	240		cagogtogta ca		-				360
	241		ccttcgcggt tt	-		ccccaccycy	ccaccyacte	cycligages	390
		Z2105	SEO ID NO: 19		ccccggcccg				390
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			TYPE: DNA						
			ORGANISM: Zea	mays					
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	249		gtatattcat gc	-		-			120
	250		accaacgact gc			-		-	180
	251		tcttgtattg tg						240
	252		ctgcctttct cc						300
	253		ttgcatttgt ct	aaaggcct	tacaaatatg	atatccgttg	cactgtatga	ttaaccacaa	360
	254		caatgtggac ta						373
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	263		tccttactca ta	-	-		_		120
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VERIFICATION SUMMARY

DATE: 04/03/2001 TIME: 13:22:59 PATENT APPLICATION: US/09/606,977

Input Set : N:\paola\i606977.raw Output Set: N:\CRF3\04032001\I606977.raw

L:17 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:1 L:17 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1 L:17 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1 L:17 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 L:39~M:258~W: Mandatory Feature missing, <220> not found for SEQ ID#:3 L:39 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:3 L:39 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:3 L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:45 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:3 L:45 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:3 L:45 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:3 L:45 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 $L:68\ M:258\ W:$ Mandatory Feature missing, <220> not found for SEQ ID#:5 L:68 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5 L:68 M:258 W: Magdatory Feature missing, <222> not found for SEQ ID#:5 L:68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 L:80 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:6 $L:80\ M:258\ W:$ Mandatory Feature missing, <221> not found for SEQ ID#:6 L:80 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6 L:80 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:116 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:9 L:116 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:9 L:116 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:9 L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 L:134 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:10 L:134 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:10 L:134~M:258~W: Mandatory Feature missing, <222> not found for SEQ ID#:10 L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 L:143 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:11 L:143 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:11 L:143 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:11 L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 L:144 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:11 L:144 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:11 L:144 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:11 L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 L:157 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:12 L:157 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12 L:157 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12 L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 L:224 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:17 L:224 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17 L:224 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17 L:224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 L:239 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:18 L:239 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:18 L:239 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:18 L:239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/606,977

DATE: 04/03/2001 TIME: 13:22:59

Input Set : N:\paola\i606977.raw
Output Set: N:\CRF3\04032001\I606977.raw

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L:267 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:20
    L:267 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:20
    L:267 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:20 L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
    L:282\ M:258\ W: Mandatory Feature missing, <220> not found for SEQ ID#:21
    L:282 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:21 L:282 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:21
    L:282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
    L:293 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:22
    L:293\ M:258\ W: Mandatory Feature missing, <221> not found for SEQ ID#:22
    L:293 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:22
    L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
    L:322 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:24
    L:322 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:24
    L:322 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:24
    L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
    \text{L:}338\ \text{M:}258\ \text{W:} Mandatory Feature missing, <220> not found for SEQ ID#:25
    L:338 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:25
   L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:375 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
    L:425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
    L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
    L:430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
    L:439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
   L:439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
    L:636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48
    L:645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
    L:646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
    L:649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
    L:674 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
    L:676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
   L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52
L:715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57
L:760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57
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VERIFICATION SUMMARY

DATE: 04/03/2001

PATENT APPLICATION: US/09/606,977

TIME: 13:22:59

Input Set : N:\paola\i606977.raw

Output Set: N:\CRF3\04032001\1606977.raw

L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 L:807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61

STATISTICS SUMMARY

PATENT APPLICATION: US/09/606,977

DATE: 04/03/2001 TIME: 13:23:01

Input Set : N:\paola\i606977.raw

Output Set: N:\CRF3\04032001\1606977.raw

Application Serial Number: US/09/606,977

Alpha or Numeric: Numeric

Application Class:

Application File Date: 06-28-2000

Art Unit:

Software Application:

Total Number of Sequences: 82359

Total Nucleotides: 31151446

Total Amino Acids: 0 Number of Errors: 0

Number of Warnings: 328604 Number of Corrections: 0

MESSAGE SUMMARY

258 W:246453 (Mandatory Feature missing)
341 W: 82151 ((46) "n" or "Xaa" used)

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